# Pakistan House Prices - 2023

**Project** – *Unlocking Real Estate Insights: Analyzing, Visualizing, Hypothesis Testing and Predict with Regression Model*

**An Overview:**
- What is the average price of properties in the dataset?
- What is the distribution of property types (e.g., flats, houses, penthouses)?
- How many properties are listed for sale, and in which cities?

**Location Analysis:**
- Which locations have the highest and lowest average property prices?
- What are the most popular locations based on the number of listings?

**Property Characteristics:**
- What is the average number of bedrooms and bathrooms for listed properties?
- How does property size vary across different types and locations?

**Price Analysis:**
- Are there outliers or high-value properties in the dataset?
- How does property price correlate with the number of bedrooms and bathrooms?

**City Comparison:**
- How do property prices differ between cities?
- Are there specific property types more common in certain cities?

**Purpose of Listings:**
- What is the distribution of properties based on their purpose (e.g., for sale)?
- How does the average price vary between different purposes?

**Specific Property Types:**
- What is the average price and size of flats in the dataset?
- Are there trends or patterns specific to flats, houses, or other property types?

**Popular Locations and Property Types:**
- Identify popular locations based on the number of listings.
- Are certain property types more prevalent in popular locations?

**Testing of Hypothesis:**
- Is the average price of same-size flats in all the cities equal or not? If not, then which city has the highest average price?
- Is there any association between purpose (i.e., for sale, for rent) and property type?

**Predictive Modeling:**
- Can we build a regression model to predict property prices based on features such as location, number of bedrooms, and size?
- What is the performance ($R^2$, RMSE, etc.) of different (build at least two) regression models for predicting property prices?